



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2007-0544; FRL-9684-7]

RIN 2060-AQ41

**National Emission Standards for Hazardous Air Pollutants
from the Pulp and Paper Industry**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review conducted for the pulp and paper industry source category regulated under national emission standards for hazardous air pollutants. The EPA is required to conduct residual risk and technology reviews under the Clean Air Act. This action finalizes amendments to the national emission standards for hazardous air pollutants that include a requirement for 5-year repeat emissions testing for selected process equipment; revisions to provisions addressing periods of startup, shutdown and malfunction; a requirement for electronic reporting; additional test methods for measuring methanol emissions; and technical and editorial changes. The amendments are expected to ensure that control systems are properly maintained over time, ensure continuous compliance with standards and improve data

accessibility; we estimate facilities nationwide will spend \$2.1 million per year to comply.

DATES: This final action is effective on [INSERT DATE OF PUBLICATION OF THIS FINAL RULE IN THE **FEDERAL REGISTER**]. The incorporation by reference of certain publications listed in this rule is approved by the Director of the **Federal Register** as of [INSERT DATE OF PUBLICATION OF THIS FINAL RULE IN THE **FEDERAL REGISTER**].

ADDRESSES: The EPA has established a docket for this action under Docket ID Number EPA-HQ-OAR-2007-0544. All documents in the docket are listed on the <http://www.regulations.gov> website. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov>, or in hard copy at the EPA Docket Center, EPA West Building, Room Number 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time, Monday through Friday. The telephone number for the Public Reading Room is (202) 566-1744, and the

telephone number for the Air and Radiation Docket and Information Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Mr. John Bradfield, Office of Air Quality Planning and Standards, (E143-03), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-3062; fax number: (919) 541-3470; and email address: bradfield.john@epa.gov.

SUPPLEMENTARY INFORMATION: For specific information regarding the risk modeling methodology, contact Mr. James Hirtz, Health and Environmental Impacts Division (C539-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-0881; fax number: (919) 541-0840; and email address: hirtz.james@epa.gov. For information about the applicability of the national emission standards for hazardous air pollutants to a particular entity, contact the appropriate person listed in Table 1 to this preamble.

Table 1--List of EPA Contacts for the NESHAP Addressed in this Final Action

NESHAP for:	OECA Contact ¹	OAQPS Contact ²
Pulp and Paper	Sara Ayres (202)564-5391 ayres.sara@epa.gov	John Bradfield (919) 541-3062 bradfield.john@epa.gov

¹ EPA's Office of Enforcement and Compliance Assurance.

² EPA's Office of Air Quality Planning and Standards.

Preamble Acronyms and Abbreviations. Several acronyms and terms used to describe industrial processes, data inventories and risk modeling are included in this preamble. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
CAA	Clean Air Act
CBI	Confidential Business Information
CCA	Clean Condensate Alternative
CDX	EPA's Central Data Exchange
CEDRI	EPA's Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CWA	Clean Water Act
DC	District of Columbia
D.C. Cir.	United States Court of Appeals for the District of Columbia Circuit
EIA	Economic Impact Analysis
EJ	Environmental Justice
EPA	Environmental Protection Agency
ERT	Electronic Reporting Tool
FR	Federal Register
FTIR	Fourier Transform Infrared
HAP	Hazardous Air Pollutants
HVLC	High Volume Low Concentration
IBR	Incorporation by Reference
ICR	Information Collection Request
km	Kilometer
LVHC	Low Volume High Concentration
MACT	Maximum Achievable Control Technology
MACT Code	Code within the NEI used to identify processes included in a source category
MIR	Maximum Individual Risk
NAICS	North American Industry Classification System
NCASI	National Council for Air and Stream Improvement
NEI	National Emissions Inventory
NESHAP	National Emissions Standards for Hazardous Air Pollutants

NRDC	Natural Resources Defense Council
NTTAA	National Technology Transfer and Advancement Act of 1995
NW	Northwest
OAQPS	EPA's Office of Air Quality Planning and Standards
ODTP	Oven-Dried Ton of Pulp
OECA	EPA's Office of Enforcement and Compliance Assurance
OMB	Office of Management and Budget
O&M	Operations and Maintenance
ppmw	Parts Per Million by Weight
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RIA	Regulatory Impact Analysis
RTR	Residual Risk and Technology Review
S. Ct.	United States Supreme Court
SBA	Small Business Administration
SISNOSE	Significant Economic Impact on a Substantial Number of Small Entities
SSM	Startup, Shutdown, and Malfunction
the Court	United State Court of Appeals for the District of Columbia Circuit
TOSHI	Target Organ-Specific Hazard Index
tpy	Tons Per Year
TTN	EPA's Technology Transfer Network
UMRA	Unfunded Mandates Reform Act of 1995
U.S.	United States
U.S.C.	United States Code
VCS	Voluntary Consensus Standards
WWW	Worldwide Web
yr	Year

Background Information Document. On December 27, 2011 (76 FR 81328), the EPA proposed revisions to the pulp and paper industry NESHAP based on evaluations performed by the EPA in order to conduct our RTR. In this action, we are finalizing decisions and revisions for the rule. A summary of the public comments on the proposal and the EPA's responses to those comments is available in Docket ID Number EPA-HQ-OAR-2007-0544.

Organization of this Document. The following outline is provided to aid in locating information in the preamble.

I. General Information

- A. Executive Summary
- B. Does this action apply to me?
- C. Where can I get a copy of this document?
- D. Judicial Review

II. Background

III. Summary of the Final Rule

- A. What are the final rule amendments for the pulp and paper industry source category?
- B. What are the requirements during periods of startup, shutdown and malfunction?
- C. What are the effective and compliance dates of the standards?
- D. What are the requirements for submission of performance test data to the EPA?

IV. Summary of Significant Changes Since Proposal

- A. Changes to the Risk Assessment Performed under CAA Section 112(f)
- B. Changes to the Technology Review Performed under CAA Section 112(d)(6)
- C. Other Changes Since Proposal

V. Summary of Cost, Environmental and Economic Impacts

- A. What are the affected facilities?
- B. What are the air quality impacts?
- C. What are the cost impacts?
- D. What are the economic impacts?
- E. What are the benefits?

VI. Statutory and Executive Order Reviews

- A. Executive Orders 12866: Regulatory Planning and Review, and Executive Order 13563: Improving Regulation and Regulatory Review
- B. Paperwork Reduction Act
- C. Regulatory Flexibility Act
- D. Unfunded Mandates Reform Act
- E. Executive Order 13132: Federalism
- F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
- G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

- H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
- I. National Technology Transfer and Advancement Act
- J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
- K. Congressional Review Act

I. General Information

A. Executive Summary

1. Purpose of the Regulatory Action

Section 112(f)(2) of the CAA requires us to determine for source categories subject to MACT standards, whether the MACT emissions standards provide an ample margin of safety to protect public health. This review, known as the residual risk review - is a one-time review that must occur within 8 years of issuance of the MACT standard. Section 112(d)(6) of the CAA requires the EPA to review and revise section 112 emissions standards, as necessary, taking into account developments in practices, processes and control technologies, emission standards promulgated under section 112 no less often than every 8 years. We issued the NESHAP for the pulp and paper industry (40 CFR part 63, subpart S) in 1998 and are due for review under CAA sections 112(d)(6) and 112(f)(2). In addition to conducting the RTR for subpart S, we are evaluating the SSM provisions in the rule in light of the D.C. Circuit Court of Appeals decision in Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008). As explained below, in the Sierra Club case, the D.C. Circuit vacated the SSM

exemption provisions in the General Provisions for non-opacity and opacity standards.

To address the RTR assessments and SSM exemptions, proposed amendments to subpart S were developed, signed by the EPA Administrator on December 15, 2011, and published in the **Federal Register** on December 27, 2011. A 60-day period ending February 27, 2012, was provided for the public to submit comments on the proposal to the EPA. This action addresses the public comments on the proposal and finalizes the amendments to subpart S. The amendments are expected to ensure that control systems are properly maintained over time, ensure continuous compliance with standards and improve data accessibility.

2. Summary of Major Provisions

As part of an ongoing effort to improve compliance with various federal air emission regulations, we are requiring repeat air emissions performance testing once every 5 years for facilities complying with the standards for kraft, soda and semi-chemical pulping vent gases; sulfite pulping processes; and bleaching systems. We are also finalizing changes to the subpart S NESHAP and the General Provisions applicability table to eliminate the SSM exemption. To increase the ease and efficiency of data submittal and improve data accessibility, we are requiring mills to submit electronic copies of performance test reports to the EPA's WebFIRE database. To allow mills greater

flexibility in demonstrating compliance with emission limits for total HAP measured as methanol, we are including four additional test methods for measuring methanol emissions from pulp and paper processes, as alternatives to EPA Method 308. We are also making a number of technical and editorial changes, including clarifying the location in the CFR of applicable test methods, incorporating by reference several non-EPA test methods and revising the General Provisions applicability table to align with those sections of the General Provisions that have been amended or reserved over time.

3. Costs and Benefits

Table 2 summarizes the costs and benefits of this action. See section V of this preamble for further discussion.

Table 2--Summary of the Costs and Benefits of the Final Amendments to the NESHAP for the Pulp and Paper Industry

Requirement	Capital cost	Annual cost	Net benefit
Repeat emissions testing	\$5.4 million	\$1.3 million	N/A
Incremental reporting/recordkeeping	\$0.50 million	\$0.74 million	N/A
Total nationwide	\$5.9 million	\$2.1 million	N/A

B. Does this action apply to me?

Regulated Entities. Categories and entities potentially regulated by this action are shown in Table 3 of this preamble.

Table 3--NESHAP and Industrial Source Categories Affected by this Final Action

NESHAP and Source Category	NAICS code ¹	MACT code ²
Pulp and Paper (Subpart S)	322	1626-1

¹ North American Industry Classification System

² Maximum Achievable Control Technology

Table 3 of this preamble is not intended to be exhaustive but rather provides a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility would be affected, you should examine the applicability criteria in the appropriate NESHAP. As defined in the Source Category Listing Report published by the EPA in 1992, the pulp and paper production source category includes any facility engaged in the production of pulp and/or paper.¹ This category includes, but is not limited to, integrated mills (where pulp and paper or paperboard are manufactured on-site), non-integrated mills (where either pulp or paper/paperboard are manufactured on-site, but not both), and secondary fiber mills (where waste paper is used as the primary raw material). Examples of pulping methods include kraft, soda, sulfite, semi-chemical and mechanical.

If you have any questions regarding the applicability of this NESHAP, please contact the appropriate person listed in the preceding FOR FURTHER INFORMATION CONTACT section.

C. Where can I get a copy of this document?

In addition to being available in the docket, an electronic copy of this final action will also be available on the WWW

¹ USEPA. Documentation for Developing the Initial Source Category List--Final Report, USEPA/OAQPS, EPA-450/3-91-030, July, 1992.

through the TTN. Following signature, a copy of the final action will be posted on the TTN's policy and guidance page for newly proposed and promulgated rules at the following address:

<http://www.epa.gov/ttn/caaa/new.html>. The TTN provides information and technology exchange in various areas of air pollution control.

Additional information is available on the RTR webpage at <http://www.epa.gov/ttn/atw/rrisk/rtrpgr.html>. This information includes source category descriptions and detailed emissions and other data that were used as inputs to the risk assessments.

D. Judicial Review

Under section 307(b)(1) of the CAA, judicial review of this final action is available only by filing a petition for review in the Court by November 13, 2012. Under section 307(b)(2) of the CAA, the requirements established by these final rules may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for us to convene a proceeding for reconsideration, "[i]f the person raising an objection can demonstrate to EPA that it was

impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding FOR FURTHER INFORMATION CONTACT section and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

II. Background

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of HAP from stationary sources. In the first stage, after the EPA has identified categories of sources emitting one or more of the HAP listed in CAA section 112(b), CAA section 112(d) calls for the EPA to promulgate NESHAP for those sources. "Major sources" are those that emit or have the potential to emit 10 tpy or more of a single HAP or 25 tpy or more of any combination of HAP. For major sources, these technology-based standards must reflect the maximum degree of emissions reductions of HAP achievable (after considering cost,

energy requirements and nonair quality health and environmental impacts) and are commonly referred to as MACT standards.

For MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as floor requirements and may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT, we must also consider control options that are more stringent than the floor under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emissions reductions, any nonair quality health and environmental impacts and energy requirements. In promulgating MACT standards, CAA section 112(d)(2) directs us to consider the application of measures, processes, methods, systems or techniques that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials or other modifications; enclose systems or processes to eliminate

emissions; collect, capture or treat HAP when released from a process, stack, storage or fugitive emissions point; and/or are design, equipment, work practice or operational standards.

In the second stage of the regulatory process, we undertake two different analyses, as required by the CAA. First, section 112(d)(6) of the CAA calls for us to review the technology-based standards and to revise them "as necessary (taking into account developments in practices, processes, and control technologies)" no less frequently than every 8 years. Second, within 8 years after promulgation of the MACT standards, CAA section 112(f) calls for us to evaluate the risk to public health remaining after application of the standards and to revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety and other relevant factors, an adverse environmental effect. Under section 112(f)(2), the EPA may re-adopt the existing MACT standards if the EPA determines that those standards are sufficiently protective. Natural Resources Defense Council (NRDC) v. EPA, 529 F.3d 1077, 1083 (D.C. Cir. 2008).

On December 27, 2011, the EPA published a proposed rule in the **Federal Register** for the pulp and paper industry NESHAP, 40 CFR part 63, subpart S based on the RTR analyses that the EPA conducted under CAA sections 112(d)(6) and 112(f)(2) (76 FR

81328). Today's action provides the EPA's final determinations and regulatory amendments pursuant to the RTR provisions of CAA section 112.

In addition, several other aspects of the subpart S MACT rule were reviewed and considered for revision at proposal, and after review of the public comment received, we are taking the following actions:

- Finalizing the requirement for 5-year repeat emissions testing for selected process equipment.
- Revising the requirements in the NESHAP related to emissions during periods of SSM.
- Finalizing the requirement for electronic reporting of performance test data.
- Adding test methods for measuring methanol emissions.
- Finalizing changes to address technical and editorial corrections in the rule.

III. Summary of the Final Rule

A. What are the final rule amendments for the pulp and paper industry source category?

The NESHAP for the pulp and paper industry was promulgated on April 15, 1998 (63 FR 18504). The standards are codified at 40 CFR part 63, subpart S. The pulp and paper industry consists of facilities engaged in the production of pulp and/or paper/paperboard. This category includes, but is not limited to, integrated mills (where pulp and paper or paperboard are manufactured on-site), non-integrated mills (where

paper/paperboard or pulp are manufactured, but not both), and secondary fiber mills (where waste paper is used as the primary raw material). The subpart S MACT standard applies to major sources of HAP emissions from the pulp production areas (e.g., pulping system vents, pulping process condensates) at chemical, mechanical, secondary fiber and non-wood pulp mills; bleaching operations; and papermaking systems. A separate NESHAP (40 CFR part 63, subpart MM) applicable to chemical recovery processes at kraft, soda, sulfite and stand-alone semi-chemical pulp mills was promulgated on January 12, 2001 (66 FR 3180). Today's rule takes final action only with respect to the RTR for subpart S. The source category covered by subpart S includes 171 facilities. As explained below, we are re-adopting the MACT standards pursuant to section 112(f)(2). We also conducted a section 112(d)(6) review and evaluated developments in practices, processes and control technologies applicable to all the emission sources subject to the pulp and paper MACT. After reviewing the comments provided at proposal, we have determined that our conclusion that there have been no developments in practices, processes and control technologies since the subpart S standard was originally promulgated was correct. Although we proposed revisions to the kraft pulping process condensate standards based on our conclusion at proposal that existing technologies were achieving greater than the 92 percent minimum

level of control, we re-analyzed the performance data and impacts of revising the kraft condensate standards in response to public comments and have decided not to promulgate amendments to those standards because we found that the costs and impacts associated with the HAP reduction were not reasonable.

Consequently, we are not revising the MACT standards for subpart S pursuant to our 112(d)(6) review as explained further below.

In addition, this section describes the other final rule amendments to the pulp and paper industry NESHAP. These revisions include the addition of repeat emissions testing for selected process equipment; changes to the requirements that apply during periods of SSM; the addition of electronic reporting requirements; and various minor changes to address technical and editorial corrections.

1. Repeat Emissions Testing

As part of an ongoing effort to improve compliance with the standard, we are adding 40 CFR 63.457(a)(2) to require repeat air emissions performance testing once every 5 years for facilities complying with the standards for kraft, soda and semi-chemical pulping vent gases (40 CFR 63.443(a)); sulfite processes (40 CFR 63.444); and bleaching systems (40 CFR 63.445). Repeat performance tests are already required by

permitting authorities for some facilities.² Requiring periodic repeat performance tests will help to ensure that control systems are maintained properly over time and a more rigorous testing requirement will better assure compliance with the standard.³

In this action, repeat air emissions testing will be required for mills complying with the kraft pulping process condensate standards in 40 CFR 63.446 using a steam stripper since stripper off-gases are, by definition, part of the LVHC system. We are clarifying that repeat air emissions testing will not be required for: (1) knotter or screen systems with HAP emission rates below the criteria specified in 40 CFR 63.443(a)(1)(ii); or (2) decker systems using fresh water or paper machine white water, or decker systems using process water with a total HAP concentration less than 400 ppmw as specified in 40 CFR 63.443(a)(1)(iv).

2. Startup, Shutdown and Malfunction

We are also finalizing changes to the subpart S NESHAP to eliminate the SSM exemption, as discussed further in section III.B below. The changes include:

(1) Revising 40 CFR 63.443(e), 63.446(g) and 63.459(b)(11)(ii) to eliminate reference to periods of SSM;

² Located in 11 states.

³ For information on the cost associated with the repeat testing requirement, see the memorandum in the docket titled, Costs, Environmental, and Energy Impacts for the Promulgated Subpart S Risk and Technology Review.

(2) Revising 40 CFR 63.453(q) to incorporate the general duty from 40 CFR 63.6(e)(1)(i) to minimize emissions;

(3) Adding 40 CFR 63.454(g), and 40 CFR 63.455(g) to require reporting and recordkeeping requirements associated with periods of malfunction;

(4) Adding 40 CFR 63.456 (formerly reserved) to include an affirmative defense to civil penalties for violations of emissions limits caused by malfunctions that meet the criteria for establishing the affirmative defense;

(5) Adding 40 CFR 63.457(o) to specify the conditions for performance tests; and

(6) Revising Table 1 to specify that 40 CFR 63.6 (e)(1)(i) and (ii), 40 CFR 63.6(e)(3), 40 CFR 63.6(f)(1); 40 CFR 63.7(e)(1), 40 CFR 63.8(c)(1)(i) and (iii), and the last sentence of 40 CFR 63.8(d)(3); 40 CFR 63.10(b)(2)(i), (ii), (iv) and (v); 40 CFR 63.10(c)(10), (11) and (15); and, 40 CFR 63.10(d)(5) of the General Provisions do not apply.

3. Electronic Reporting

To increase the ease and efficiency of data submittal and improve data accessibility, we are requiring mills to submit electronic copies of performance test reports to the EPA's WebFIRE database, as discussed in section III.D below. The electronic reporting requirement is being added under 40 CFR 63.455(h).

4. Additional Test Methods for Measuring Methanol Emissions

To allow mills greater flexibility in demonstrating compliance with emission limits for total HAP measured as methanol, we are revising 40 CFR 63.457(b)(5)(i) to include four additional test methods for measuring methanol emissions from pulp and paper processes, as alternatives to EPA Method 308 of part 63, appendix A. The four additional test methods are:

- (1) Method 18 of part 60, appendix A-6;
- (2) Method 320 of part 63, appendix A;
- (3) ASTM D6420-99, determined to be an acceptable alternative to EPA Method 18; and
- (4) ASTM D6348-03, determined to be an acceptable alternative to EPA Method 320.

We are also revising 40 CFR 63.14(b)(28) and (b)(54) to IBR ASTM D6420-99 and ASTM D6348-03, respectively.

5. Other

We are also finalizing the following minor changes to the subpart S NESHAP and part 63 General Provisions to address technical and editorial corrections:

- (1) Revising 40 CFR 63.457(b)(1) to specify part 60, appendix A-1 for Method 1 or 1A;
- (2) Revising 40 CFR 63.457(b)(3) to specify part 60, appendix A-1 for Method 2, 2A, 2C or 2D;

(3) Revising 40 CFR 63.457(b)(5)(ii) to specify part 60, appendix A-8 for Method 26A;

(4) Revising 40 CFR 63.457(d) to specify part 60, appendix A-7 for Method 21;

(5) Revising 40 CFR 63.457(k)(1) to specify part 60, appendix A-2 for Method 3A or 3B, and include ASME PTC 19.10-part 10 as an alternative to Method 3B;

(6) Revising 40 CFR 63.457(c)(3)(ii) to replace NCASI Method DI/MEOH-94.02 with the more recent version of this method, NCASI Method DI/MEOH-94.03;

(7) Revising 40 CFR 63.14(f)(1) to incorporate by reference NCASI Method DI/MEOH-94.03;

(8) Redesignating 40 CFR 63.14(f)(3) and (f)(4) as 40 CFR 63.14(f)(4) and (f)(5) and adding 40 CFR 63.14(f)(3) to incorporate by reference NCASI Method DI/HAPS-99.01;

(9) Revising 40 CFR 63.14(i)(1) to incorporate by reference ANSI/ASME PTC 19.10-1981; and

(10) Revising Table 1 so it aligns more closely to the sections in subpart A which have been amended or reserved over time.

B. What are the requirements during periods of startup, shutdown and malfunction?

In 2008, the Court vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of

HAP during periods of SSM. Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008), cert. denied, 130 S. Ct. 1735 (U.S. 2010). Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), that are part of a regulation, commonly referred to as the "General Provisions Rule," that the EPA promulgated under section 112 of the CAA. When incorporated into CAA section 112(d) regulations for specific source categories, these two provisions exempt sources from the requirement to comply with the otherwise applicable CAA section 112(d) emission standard during periods of SSM.

Consistent with Sierra Club v. EPA, we have eliminated the SSM exemption in this rule. We have also revised Table 1 (the General Provisions table) in several respects. For example, we have eliminated the General Provisions' requirement that the source develop a SSM plan. We have also eliminated or revised certain recordkeeping and reporting that related to the SSM exemption. The EPA has attempted to ensure that we have not included in the regulatory language any provisions that are inappropriate, unnecessary or redundant in the absence of the SSM exemption.

In establishing the standards for startup and shutdown, we reviewed the information available to us from the 2011 pulp and paper ICR pertaining to equipment and control and compliance demonstration methods during startup and shutdown. Some

commenters suggested that we establish different standards for periods of startup and shutdown. However, the information available to us regarding startup and shutdown does not show that emissions are higher during startup or shutdown or indicate a need for alternate standards for these periods. Further, the commenters have not shown that sources cannot comply with the standards as proposed and have not provided information to support development of alternative standards that would apply during startup and shutdown periods.

Our findings relative to startup and shutdown for the universe of pulp and paper processes regulated under subpart S (which offers a variety of compliance options) are discussed in detail in the response-to-comments document and in a memorandum in the docket⁴. Based upon these findings, and consistent with our proposal, the EPA has not established different standards for startup and shutdown periods.

Periods of startup, normal operations and shutdown are all predictable and routine aspects of a source's operations. However, by contrast, malfunction is defined as a "sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner * * *" (40 CFR

⁴ See Review of Pulp and Paper Information Collection Request (ICR) Responses Pertaining to Startup and Shutdown of Subpart S Equipment, in the docket for the subpart S rulemaking.

63.2). The EPA has determined that CAA section 112 does not require that emissions that occur during periods of malfunction be factored into development of CAA section 112 standards. Under section 112, emissions standards for new sources must be no less stringent than the level "achieved" by the best controlled similar source and for existing sources generally must be no less stringent than the average emission limitation "achieved" by the best performing 12 percent of sources in the category. There is nothing in section 112 that directs the agency to consider malfunctions in determining the level "achieved" by the best performing or best controlled sources when setting emission standards. Moreover, while the EPA accounts for variability in setting emissions standards consistent with the section 112 case law, nothing in that case law requires the agency to consider malfunctions as part of that analysis. Section 112 uses the concept of "best controlled" and "best performing" unit in defining the level of stringency that section 112 performance standards must meet. Applying the concept of "best controlled" or "best performing" to a unit that is malfunctioning presents significant difficulties as malfunctions are sudden and unexpected events.

Further, accounting for malfunctions would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the category and given the

difficulties associated with predicting or accounting for the frequency, degree and duration of various malfunctions that might occur. As such, the performance of units that are malfunctioning is not "reasonably" foreseeable. See, e.g., Sierra Club v. EPA, 167 F. 3d 658, 662 (D.C. Cir. 1999) (the EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to "invest the resources to conduct the perfect study."). See also, Weyerhaeuser v. Costle, 590 F.2d 1011, 1058 (D.C. Cir. 1978) ("In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by 'uncontrollable acts of third parties,' such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation."). In addition, the goal of a best controlled or best performing source is to operate in such a way as to avoid malfunctions of the source and accounting for malfunctions could lead to standards that are significantly less stringent than levels that are achieved by a well-performing non-malfunctioning

source. The EPA's approach to malfunctions is consistent with section 112 and is a reasonable interpretation of the statute.

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify violations. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, "sudden, infrequent, not reasonably preventable" and was not instead "caused in part by poor maintenance or careless operation." 40 CFR 63.2 (definition of malfunction).

Finally, the EPA recognizes that even equipment that is properly designed and maintained can sometimes fail and that such failure can sometimes cause a violation of the relevant emission standard. (See, e.g., State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown (Sept. 20, 1999); Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions (Feb. 15, 1983)). The EPA is therefore adding to the final rule an affirmative defense to civil penalties for violations of emission standards that are caused by

malfunctions. See 40 CFR 63.441 (defining "affirmative defense" to mean, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding). We also have added other regulatory provisions to specify the elements that are necessary to establish this affirmative defense; the source must prove by a preponderance of the evidence that it has met all of the elements set forth in 40 CFR 63.456. (See 40 CFR 22.24). The criteria ensure that the affirmative defense is available only where the event that causes a violation of the emission standard meets certain criteria. For example, to successfully assert the affirmative defense, the source must prove by a preponderance of the evidence that the violation was "caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner..." The criteria also are designed to ensure that steps are taken to correct the malfunction, to minimize emissions in accordance with 40 CFR 63.456 and to prevent future malfunctions. For example, the source must prove by a preponderance of the evidence that "[r]epairs were made as expeditiously as possible when a violation occurred..." and that "[a]ll possible steps were taken to minimize the impact of the

violation on ambient air quality, the environment and human health..." In any judicial or administrative proceeding, the Administrator may challenge the assertion of the affirmative defense and, if the respondent has not met its burden of proving all of the requirements in the affirmative defense, appropriate penalties may be assessed in accordance with section 113 of the CAA (see also 40 CFR 22.27).

The EPA is including an affirmative defense in the final rule in an attempt to balance a tension, inherent in many types of air regulation, to ensure adequate compliance while simultaneously recognizing that despite the most diligent of efforts, emission standards may be violated under circumstances beyond the control of the source. The EPA must establish emission standards that "limit the quantity, rate, or concentration of emissions of air pollutants on a continuous basis." 42 U.S.C. 7602(k) (defining "emission limitation and emission standard"). See generally Sierra Club v. EPA, 551 F.3d 1019, 1021 (D.C. Cir. 2008). Thus, the EPA is required to ensure that section 112 emissions standards are continuous. The affirmative defense for malfunction events meets this requirement by ensuring that even where there is a malfunction, the emission standard is still enforceable through injunctive relief. While "continuous" standards, on the one hand, are required, there is also case law indicating that in many

situations, it is appropriate for the EPA to account for the practical realities of technology. For example, in Essex Chemical v. Ruckelshaus, 486 F.2d 427, 433 (D.C. Cir. 1973), the D.C. Circuit acknowledged that in setting standards under CAA section 111 "variant provisions" such as provisions allowing for upsets during startup, shutdown and equipment malfunction "appear necessary to preserve the reasonableness of the standards as a whole and that the record does not support the 'never to be exceeded' standard currently in force." See also, Portland Cement Association v. Ruckelshaus, 486 F.2d 375 (D.C. Cir. 1973). Though intervening case law such as Sierra Club v. EPA and the CAA 1977 amendments call into question the relevance of these cases today, they support the EPA's view that a system that incorporates some level of flexibility is reasonable. The affirmative defense simply provides for a defense to civil penalties for violations that are proven to be beyond the control of the source. By incorporating an affirmative defense, the EPA has formalized its approach to upset events. In a CWA setting, the Ninth Circuit required this type of formalized approach when regulating "upsets beyond the control of the permit holder." Marathon Oil Co. v. EPA, 564 F.2d 1253, 1272-73 (9th Cir. 1977). See also, Mont. Sulphur & Chem. Co. v. United States EPA, 2012 U.S. App. LEXIS 1056 (Jan 19, 2012) (rejecting industry argument that reliance on the affirmative defense was

not adequate). But see, Weyerhaeuser Co. v. Costle, 590 F.2d 1011, 1057-58 (D.C. Cir. 1978) (holding that an informal approach is adequate). The affirmative defense provisions give the EPA the flexibility to both ensure that its emission standards are "continuous" as required by 42 U.S.C. 7602(k), and account for unplanned upsets and thus support the reasonableness of the standard as a whole.

C. What are the effective and compliance dates of the standards?

The revisions to subpart S being promulgated in this action are effective on [INSERT DATE OF PUBLICATION OF THIS FINAL RULE IN THE **FEDERAL REGISTER**]. The compliance date for the revisions we are finalizing today is [INSERT DATE OF PUBLICATION OF THIS FINAL RULE IN THE **FEDERAL REGISTER**], with the exception of the following: (1) the first of the 5-year repeat tests must be conducted within 36 months of the effective date of the standards, by September 7, 2015, and thereafter within 60 months from the date of the previous performance test; and 2) the date to submit performance test data through ERT is within 60 days after the date of completing each performance test.

D. What are the requirements for submission of performance test data to the EPA?

As stated in the proposed rule preamble, the EPA is taking a step to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is requiring owners

and operators of pulp and paper facilities to submit electronic copies of required performance test reports.

As mentioned in the proposed rule preamble, data will be collected through an electronic emissions test report structure called the ERT. The ERT will generate an electronic report, which will be submitted to the EPA's CDX through the CEDRI. A description of the ERT can be found at:

<http://www.epa.gov/ttn/chief/ert/index.html>, and CEDRI can be accessed through the CDX website: (<http://www.epa.gov/cdx>).

The requirement to submit performance test data electronically to the EPA does not create any additional performance testing and will apply only to those performance tests conducted using test methods that are supported by the ERT. A listing of the pollutants and test methods supported by the ERT is available at the previously mentioned ERT website. Through this approach, industry is expected to save time in the performance test submittal process. Additionally this rulemaking benefits industry by cutting back on recordkeeping costs as the performance test reports that are submitted to the EPA using CEDRI are no longer required to be kept on-site.

As mentioned in the proposed rule preamble, state, local and tribal agencies will benefit from more streamlined and accurate review of electronic data that will be available on the EPA WebFIRE database. Additionally, performance test data will

become available to the public through WebFIRE. Having such data publicly available enhances transparency and accountability. The major advantages of electronic reporting are more fully explained in the proposed rule preamble (76 FR 81348).

In summary, in addition to supporting regulation development, control strategy development and other air pollution control activities, having an electronic database populated with performance test data will save industry, state, local, tribal agencies and the EPA significant time, money and effort, while improving the quality of emissions inventories and, as a result, air quality regulations.

IV. Summary of Significant Changes Since Proposal

A. Changes to the Risk Assessment Performed under CAA Section 112(f)

As noted at proposal (76 FR 81344), the risk analysis performed for the pulp and paper source category indicated that the cancer risks to the individual most exposed are no higher than 10 in 1 million due to actual or MACT-allowable emissions. These risks are considerably less than 100 in 1 million, which is the presumptive upper limit of risk acceptability. The risk analysis also showed generally low cancer incidence (1 case every 100 years); no potential for adverse environmental effects or human health multipathway effects; no potential for chronic noncancer impacts; and, as explained in the proposal and further

below, while a potential exists for some acute inhalation impacts, they are likely to be minimal because the potential impacts occur in uninhabited areas where terrain prevents ready access by the public. Also, we received comment on the risk assessment that is addressed in our comment response⁵.

The number of people exposed to cancer risks of 1 in 1 million or greater due to emissions from the source category was determined to be relatively low (76,000). The number of people exposed at the MIR cancer risk of 10 in 1 million or greater due to emissions from the source category was significantly lower (40). Considering all of this health information and the uncertainties discussed in the proposal preamble (76 FR 81338-40), the risks from the pulp and paper source category were deemed to be acceptable. 76 FR 81344.

Our analysis of facilitywide risks showed five mills with maximum chronic cancer risks between 10 and 30 in 1 million and four mills with maximum chronic noncancer TOSHI between 1 and 2. For the facility with the highest facilitywide risk (i.e., 30 in 1 million), emissions from the pulp and paper (subpart S) source category only contributed 27 percent to the chronic cancer risk and 23 percent to the chronic noncancer risk.

⁵ See the memorandum in the docket titled, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry (40 CFR Part 63, Subpart S) Residual Risk and Technology Review, Final Amendments Response to Public Comments on December 27, 2011 Proposal

As directed by section 112(f)(2), we conducted an analysis to determine if the standard provides an ample margin of safety analysis to protect public health. Under the ample margin of safety analysis, we first considered the health impacts for the source category. Then we analyzed the potential for emissions reductions within the source category by evaluating available control technologies and their capabilities for reduction of the residual risk remaining after the implementation of MACT controls. Then we evaluated the potential costs and energy impacts of these additional controls.⁶ Based on this analysis, we conclude that the current standard protects public health with an ample margin of safety. (76 FR 81344) We solicited comment on the proposal (76 FR 81349-51), asking for any additional data that may help to reduce the uncertainties inherent in the risk assessments and other analyses. We were specifically interested in receiving corrections to the mill-specific HAP emissions data used in the risk modeling. The mill-specific emissions data were available for download on the EPA's RTR web page at: <http://www.epa.gov/ttn/atw/rrisk/rtrpg.html>. Commenters on the subpart S proposal were asked to determine whether any of the data were unrepresentative or inaccurate and to submit their comments on the data downloaded from the RTR web page.

⁶ For a full discussion of this analysis, see the memorandum in the docket titled, Ample Margin of Safety Analysis for Pulping and Papermaking Processes.

A total of 81 mills submitted specific revisions to their mill-specific data. The EPA reviewed the data revisions to determine whether they would influence the outcome of the risk assessment results as proposed. Specifically, the mills submitted data revisions that remove pollutants, change emission release point type from fugitive to stack and change stack/fugitive emission parameters. Our review indicated that these changes would reduce emissions and/or impacts. Consequently, we have determined that the results of the revisions would most likely adjust the risk results for the subpart S source category downward (i.e., reduce risk) if we were to remodel the category. Therefore, we have decided not to remodel risk for purposes of promulgating the subpart S residual risk review because our conservative approach at proposal overstates existing risk and reinforces the conclusions from the risk modeling conducted at proposal. A memorandum for the docket was prepared that summarizes the data revisions received and supports the decision not to remodel risk.⁷ A separate document presents the results of the EPA's risk analysis.⁸ We conclude based on the Residual Risk Assessment cited here that the risks from the subpart S pulp and papermaking source category are

⁷ See the memorandum in the docket titled, Recommendations Concerning Residual Risk Remodeling for the Pulp and Paper Industry.

⁸ See Residual Risk Assessment for the Pulp & Paper Source Category, in the docket for the subpart S rulemaking.

acceptable and that the current standard protects the public health with an ample margin of safety. Consequently, we are re-adopting the MACT standards for subpart S pursuant to our 112(f)(2) review.

B. Changes to the Technology Review Performed under CAA Section 112(d)(6)

As a result of our initial technology review, we proposed on December 27, 2011, to strengthen the kraft pulping process condensate standards in 40 CFR 63.446 by increasing the HAP removal requirement from 92 to 94 percent (or an equivalent pound/ODTP or ppmw limit). Several commenters opposed the proposed revisions to the kraft pulping process condensate standards, for reasons including calculation methodology issues, data misinterpretation, undetermined impacts on mills utilizing the clean condensate compliance alternative and additional steam and energy impacts for rule compliance. A detailed discussion of these comments can be found in the Response to Comment Document.⁹

In response to these comments, we have: (1) re-analyzed the condensate collection information provided in the ICR; (2) evaluated the design criteria (and energy impacts) of the steam strippers and biotreatment units typically used by facilities to assure compliance with 40 CFR 63.446; (3) reviewed additional

⁹ See the memorandum in the docket titled, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry (40 CFR Part 63, Subpart S) Residual Risk and Technology Review, Final Amendments Response to Public Comments on December 27, 2011, Proposal.

cost and control information that supplements the data collected in the ICR; and (4) considered the effects of the proposed standards on CCA mills.

In our re-analysis, we estimated the potential nationwide cost associated with increasing condensate treatment from 92 to 94 percent reduction would be \$423 million (capital) and \$85.1 million/yr. We estimated a HAP emissions reduction of 2,300 tpy, for a cost effectiveness of \$37,000/ton of HAP. This estimate includes the costs associated with a repeat CCA demonstration and switching from CCA to HVLC pulping vent gas control at mills where the CCA approach would be adversely affected. Our revised cost estimates for a 94 percent reduction standard are significantly higher than the cost estimates that we developed at proposal for a 94 percent reduction standard because we determined that a greater number of mills would be affected after the potential impacts on CCA mills. Also, the cost-to-sales ratios for the three affected small businesses are also higher with one small business now estimated to have a ratio of 15 percent.¹⁰ For this reason alone, we would decline to revise the standard under (d)(6) because we find increasing the standard from 92 percent to 94 percent not cost effective. In

¹⁰ For further information on the costs and impacts associated with the 93 and 94 percent reduction options considered for promulgation of the kraft pulping process condensate standards, see the memorandum in the docket titled, Costs, Environmental, and Energy Impacts for the Promulgated Subpart S Risk and Technology Review.

addition, after review of the comments, we recognize that we failed to fully consider the energy and secondary air emissions impacts associated with the 94 percent reduction limit for these mills, due to increased steam demand for new and upgraded stripper systems. Upon review of the information in the record, we believe these factors also weigh against revising the MACT standards. In the proposal, we estimated energy and secondary emissions impacts based on increased electricity requirements for biological treatment. We did not assume there were any additional impacts from new and upgraded steam strippers because they were expected to be more energy efficient, however, commenters indicated that additional steam would be required for these facilities. We have considered these energy and secondary air emissions impacts for steam strippers for the final rule as a result of the public comments.¹¹

Similarly, we also analyzed the potential nationwide costs and impacts of increasing the 92 percent reduction standard to 93 percent reduction. For a 93 percent reduction standard, estimated capital costs would be \$396 million and estimated annualized costs would be \$74.4 million/yr, with a HAP emission reduction of 989 tpy, or approximately \$75,000/ton of HAP. Additionally, the cost-to-sales ratio is nearly 6 percent for

¹¹ Id.

one of the three small businesses.¹² For this reason alone, we would decline to revise the standard under (d)(6) because we find increasing the standard from 92 percent to 93 percent not cost effective. In addition, after review of the comments, we recognize that we failed to fully consider the energy and secondary air emissions impacts associated with the 93 percent reduction limit for these mills, due to increased steam demand for new and upgraded stripper systems. Upon review of the information in the record, we believe these factors also weigh against revising the MACT standards.

Based on this re-analysis, we do not consider the costs and impacts associated with the HAP reduction that would be achieved under either the 93 or 94 percent reduction options to be reasonable. Consequently we are not revising the MACT standards pursuant to section 112(d)(6).

C. Other Changes Since Proposal

1. Repeat Emissions Testing

In response to a comment, we have added language to clarify that the 5-year repeat testing is not required for: (1) knotter or screen systems with HAP emission rates below the criteria specified in 40 CFR 63.443(a)(1)(ii); or (2) decker systems using fresh water or paper machine white water or decker systems

¹² Id.

using process water with a total HAP concentration less than 400 ppm by weight as specified in 40 CFR 63.443(a)(1)(iv).

2. Compliance Dates

Commenters requested clarification of the electronic reporting effective date since the proposed rule stated that performance test data must be submitted "[a]s of January 1, 2012 and within 60 days of completing each performance test...". The commenters noted that the January 1, 2012, date would require submission of performance testing before the final rule was in effect. In response to this comment, we have deleted reference to January 1, 2012, from the final rule. Electronic reports would be submitted within 60 days after completing each performance test.

3. Excess Emissions Allowances

Some commenters expressed concern regarding the EPA's request for comment in the preamble to the proposed rule (76 FR 81346) as to whether to remove or modify the excess emissions allowance provisions in 40 CFR 63.443(e), 63.446(g) and 63.459(b)(11)(ii). We are deferring final action on the excess emissions allowances until a later date in order to analyze more recent information on the allowances that we have obtained from industry. After we have completed our analysis of the data, we expect to publish a proposed rule describing the changes to the excess emissions allowance provisions that we believe are

warranted and provide a further opportunity for public comment before taking final action with respect to the excess emissions allowance provisions.

4. Affirmative Defense

We have made certain changes to 40 CFR 63.456 for the final rule to clarify the circumstances under which a source may assert an affirmative defense. The changes to 40 CFR 63.456 clarify that a source may assert an affirmative defense to a claim for civil penalties for violations of standards that are caused by malfunctions. A source can avail itself of the affirmative defense when there has been a violation of the emission standards due to an event that meets the definition of malfunction under 40 CFR 63.2 and qualifies for assertion of an affirmative defense under §63.456. In the proposal, we used terms such as "exceedance" or "excess emissions" in 40 CFR 63.456, which created unnecessary confusion as to when the affirmative defense could be used. In the final rule, we have eliminated those terms and used the word "violation" to make clear that the affirmative defense to civil penalties is available only where an event that causes a violation of the emissions standard meets the criteria for the assertion of an affirmative defense under §63.456.

We have also eliminated the 2-day notification requirement that was included in 40 CFR 63.456(b) at proposal because we

expect to receive sufficient notification of malfunction events that result in violations in other required compliance reports, such as the malfunction report required under 40 CFR 63.455(g). In addition, we have revised the 45-day affirmative defense reporting requirement that was included in 40 CFR 63.456(b) at proposal to require sources to include the report in the first compliance, deviation or excess emission report due after the initial occurrence of the violation, unless the compliance, deviation or excess emission report is due less than 45 days after the violation. In that case, the affirmative defense report may be included in the second compliance, deviation or excess emission report due after the initial occurrence of the violation. Because the affirmative defense report is now included in a subsequent compliance, deviation or excess emission report, there is no longer a need for the proposed 30-day extension for submitting a stand-alone affirmative defense report. Consequently, we are not including this provision in the final rule.

V. Summary of Cost, Environmental and Economic Impacts

A. What are the affected facilities?

There are currently 171 major source pulp and paper mills operating in the United States. The affected source for kraft, soda, sulfite or semi-chemical pulping processes is the total of all HAP emission points in the pulping and bleaching systems.

The affected source for mechanical, secondary or non-wood pulping processes is the total of all HAP emission points in the bleaching system. We estimate that 114 of the 171 major source mills operate subpart S processes that are affected by this final rule.

B. What are the air quality impacts?

These final amendments will require an estimated 114 mills to conduct repeat testing for pulping and bleaching operations and all major sources with equipment subject to the subpart S standards to operate without the SSM exemption. We were unable to quantify the specific emissions reductions associated with repeat emissions testing or eliminating the SSM exemption. However, repeat testing will tend to reduce emissions by providing incentive for facilities to maintain their control systems and make periodic adjustments to ensure peak performance. Eliminating the SSM exemption will reduce emissions by requiring facilities to meet the applicable standard during SSM periods.

Section IV.B of this preamble presents estimates of the air quality impacts associated with the kraft pulping process condensate regulatory options that were not selected for inclusion in this final rule.

C. What are the cost impacts?

Pulp and paper mills will incur costs to conduct repeat testing and record malfunctions in support of the new affirmative defense in the rule. Costs associated with elimination of the startup and shutdown exemption were estimated as part of the reporting and recordkeeping costs and include time for re-evaluating previously developed SSM record systems. Nationwide capital costs are estimated to be \$5.9 million. The total nationwide annualized costs associated with these new requirements are estimated to be \$2.1 million per year.

Section IV.B of this preamble presents cost estimates associated with the kraft pulping process condensate regulatory options that were not selected for inclusion in this final rule.

D. What are the economic impacts?

We performed an EIA of the final rule for pulp and paper consumers and producers nationally. The EIA, which documents the data sources and methods used and provides detailed results, can be found in the docket for the final rule. This section provides an overview of key results.

The final rule induces minimal changes in the average national price of paper and paperboard products. Paper and paperboard product prices increase less than 0.01 percent on average, while production levels decrease less than 0.01 percent on average, as a result of the final rule. Consumers are estimated to experience a reduction in economic welfare of about

\$1.1 million as the result of slightly higher prices and slightly reduced consumption. Although producers' welfare losses are mitigated to some degree by slightly higher prices, market conditions limit their ability to pass on all of the compliance costs. As a result, they also are estimated to experience a loss in economic welfare of about \$1.0 million as a result of the final rule.

E. What are the benefits?

Because this rulemaking is not likely to have an annual effect on the economy of \$100 million or more, we have not conducted a RIA or a benefits analysis. Since we were unable to quantify the emissions reductions associated with the new requirements in the final rule (repeat testing and elimination of the SSM exemption), we were also unable to quantify the monetary benefits associated with these new requirements.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review, and Executive Order 13563: Improving Regulation and Regulatory Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action" because it raises novel legal and policy issues. Accordingly, the EPA submitted this action to OMB for review under Executive Order 12866 and 13563 (76 FR 3821, January 21, 2011), and any changes

made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this final rule have been submitted for approval to OMB under the PRA, 44 U.S.C. 3501, et seq. The ICR document prepared by the EPA has been assigned EPA ICR number 2452.02. The information collection requirements are not enforceable until OMB approves them. The information requirements are based on notification, recordkeeping and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emissions standards. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to agency policies set forth in 40 CFR part 2, subpart B.

This final rule includes new paperwork requirements for repeat testing for selected process equipment, as described in 40 CFR 63.457(a)(2). More specifically, we are requiring stack testing every 5 years for total HAP for chemical pulping operations and bleaching operations at pulp and paper mills. This final rule also includes new paperwork requirements for

recordkeeping of malfunctions, as described in 40 CFR 63.454(g) (conducted in support of the affirmative defense provisions, as described in 40 CFR 63.456).

When a malfunction occurs, sources must report the event according to the applicable reporting requirements of 40 CFR part 63, subpart S. An affirmative defense to civil penalties for violations of emission limits that are caused by malfunctions is available to a source if it can demonstrate that certain criteria and requirements are satisfied. The criteria ensure that the affirmative defense is available only where the event that causes a violation of the emission limit meets the narrow definition of malfunction in 40 CFR 63.2 (sudden, infrequent, not reasonable preventable and not caused by poor maintenance and or careless operation) and where the source took necessary actions to minimize emissions. In addition, the source must meet certain notification and reporting requirements. For example, the source must prepare a written root cause analysis and submit a written report to the Administrator documenting that it has met the conditions and requirements for assertion of the affirmative defense.

The EPA is adding affirmative defense to the estimate of burden in the ICR. To provide the public with an estimate of the relative magnitude of the burden associated with an assertion of the affirmative defense position adopted by a source, the EPA

has provided administrative adjustments to the ICR that show what the notification, recordkeeping and reporting requirements associated with the assertion of the affirmative defense might entail. The EPA's estimate for the required notification, reports and records for any individual incident, including the root cause analysis, totals \$3,258, and is based on the time and effort required of a source to review relevant data, interview plant employees and document the events surrounding a malfunction that has caused a violation of an emissions limit. The estimate also includes time to produce and retain the record and reports for submission to the EPA. The EPA provides this illustrative estimate of this burden because these costs are only incurred if there has been a violation and a source chooses to take advantage of the affirmative defense.

Given the variety of circumstances under which malfunctions could occur, as well as differences among sources' operation and maintenance practices, we cannot reliably predict the severity and frequency of malfunction-related excess emissions events for a particular source. It is important to note that the EPA has no basis currently for estimating the number of malfunctions that would qualify for an affirmative defense. Current historical records would be an inappropriate basis, as source owners or operators previously operated their facilities in recognition that they were exempt from the requirement to comply with

emissions standards during malfunctions. Of the number of excess emissions events reported by source operators, only a small number would be expected to result from a malfunction (based on the definition above), and only a subset of violations caused by malfunctions would result in the source choosing to assert the affirmative defense. Thus, we expect the number of instances in which source operators might be expected to avail themselves of the affirmative defense will be extremely small. For this reason, we estimate no more than two such occurrences per year for all sources subject to subpart S over the 3-year period covered by this ICR. We expect to gather information on such events in the future and will revise this estimate as better information becomes available.

The estimated recordkeeping and reporting burden associated with subpart S after the effective date of the final rule is estimated to be 52,300 labor hours at a cost of \$4.94 million per year and total non-labor capital and O&M costs of \$841,000 per year. This estimate includes reporting costs, such as reading and understanding the rule requirements, conducting required activities (e.g., stack testing, inspections), and preparing notifications and compliance reports and recordkeeping costs associated with malfunctions, monitoring and inspections. The total burden for the federal government is estimated to be

6,870 hours per year at a total labor cost of \$310,000 per year. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control numbers for the approved information collection requirements contained in this final rule.

C. Regulatory Flexibility Act

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act, or any other statute, unless the agency certifies that the rule will not have a SISNOSE. Small entities include small businesses, small organizations and small governmental jurisdictions.

For purposes of assessing the impacts of this final rule on small entities, small entity is defined as: (1) a small business as defined by the SBA's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a

population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. For this source category, which has the general NAICS subsector code 322 (i.e., Paper Manufacturing), the SBA small business size standard is 500 to 750 employees (depending on the specific NAICS code) according to the SBA small business standards definitions.

The EPA analyzed impacts on small businesses by comparing estimated annualized engineering compliance costs at the company-level to company revenue. The analysis found that the ratio of compliance cost to company revenue falls below 1 percent for the three small companies that are likely to be affected by the finalized rule. After considering the economic impacts of this final rule on small entities, I certify that this action will not have a SISNOSE. See the EIA in the docket for this rule for more details on this analysis.

Although this final rule will not have a SISNOSE, the EPA nonetheless has tried to reduce the impact of this rule on small entities. The proposed amendment tightening the kraft pulping process condensate standards was not finalized after the EPA re-evaluated the amendment and its costs and impacts in response to public comments (see section IV.B of this preamble for further information). The repeat testing requirement was established in

a way that minimizes the costs for testing and reporting while still providing the agency the necessary information needed to ensure continuous compliance with the final standards. Also, the final malfunction recordkeeping requirement was designed to provide all pulp and paper companies, including small entities, with a means of supporting an affirmative defense in the event of a violation occurring during a malfunction.

D. Unfunded Mandates Reform Act

This action does not contain a federal mandate under the provisions of Title II of the UMRA, 2 U.S.C. 1531-1538 for state, local or tribal governments or the private sector. This final rule is not expected to impact state, local or tribal governments. The nationwide annual cost of this final rule for affected sources is \$2.1 million. Thus, this rule is not subject to the requirements of sections 202 or 205 of the UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This rule does not apply to such governments and will not impose any obligations upon them.

E. Executive Order 13132: Federalism

This final rule does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or

on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the facilities subject to this action are owned or operated by state governments and nothing in this final rule will supersede state regulations. The burden to the respondents and the states is less than \$2.1 million for the entire source category. Thus, Executive Order 13132 does not apply to this final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This final rule does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It will not have substantial direct effect on tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this action. However, the EPA did outreach and consultation on this rule. The EPA presented this information to the tribes prior to proposal of this rule via a call with the National Tribal Air Association. In addition, the EPA presented the information on the sources and the industry at the National Tribal Forum in Spokane, Washington. The EPA also offered consultation by letters sent to all tribal leaders. We

held that consultation with the Nez Perce, Forest County Potowatomi and Leech Lake Band of Ojibewa on October 6, 2011. Additionally, a public outreach webinar was conducted during the comment period on January 31, 2012, to review the proposed rule. The webinar was coordinated with the tribal governments and the general public.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This final rule is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in Executive Order 12866, and because the agency does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. This action will not relax the control measures on existing regulated sources, and the EPA's risk assessment results - included in the preamble (76 FR 81344) and docket (EPA-HQ-OAR-2007-0544) for the proposed rule - demonstrate that the existing regulation is associated with an acceptable level of risk and an ample margin of safety to protect public health.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" as defined under Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. This action will not

create any new requirements for sources in the energy supply, distribution or use sectors.

I. National Technology Transfer and Advancement Act

Section 12(d) of the NTTAA, Public Law No. 104-113, 12(d) (15 U.S.C. 272 note), directs the EPA to use VCS in its regulatory activities, unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures and business practices) that are developed or adopted by VCS bodies. The NTTAA directs the EPA to provide Congress, through OMB, explanations when the agency decides not to use available and applicable VCS.

This final rulemaking involves technical standards. The EPA has decided to use three VCS in this final rule.

One VCS, ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," is cited in this final rule for its manual method of measuring the content of the exhaust gas as an acceptable alternative to EPA Method 3B of appendix A-2. This standard is available at <http://www.asme.org> or by mail at the ASME, Post Office Box 2900, Fairfield, NJ 07007-2900; or at Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.

A second VCS, ASTM D6420-99 (2010), "Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry" is cited as an acceptable alternative to EPA Method 18. A third VCS, ASTM D6348-03 (2010), "Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy," was determined to be an acceptable alternative to EPA Method 320. EPA Methods 18 and 320 are added as alternatives to EPA Method 308 in this final rule for measurement of methanol emissions. The two VCS alternatives are available for purchase from ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

While the EPA has identified another 14 VCS as being potentially applicable to this final rule, we have decided not to use these VCS in this rulemaking. The use of these VCS would be impractical because they do not meet the objectives of the standards cited in this rule. See the docket for this rule for the reasons for these determinations.

Under 40 CFR 63.7(e)(2)(ii) and (f) and 63.8(f) of the NESHAP General Provisions, a source may apply to the EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing

methods, performance specifications or procedures in the final rule and any amendments.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on EJ. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make EJ part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low income populations in the United States.

The EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority, low income or indigenous populations because it does not affect the level of protection provided to human health or the environment.

These final standards will not relax the control measures on sources regulated by the rule and, therefore, will not cause emissions increases from these sources. In fact, as noted in section III.A of this preamble, the repeat testing provisions included in this final rule will tend to reduce emissions by providing incentive for facilities to maintain their control systems and make periodic adjustments to ensure peak

performance. Also, eliminating the SSM exemption will reduce emissions by requiring facilities to meet the applicable standard during SSM periods.

Additionally, the agency has reviewed this rule to determine if there is an overrepresentation of minority, low income or indigenous populations near the sources such that they may face disproportionate exposure from pollutants that could potentially be mitigated by this rulemaking. Although this analysis gives some indication of populations that may be exposed to levels of pollution that cause concern, it does not identify the demographic characteristics of the most highly affected individuals or communities.

The demographic data show that while most demographic categories are below, or within, 2 percentage points of national averages, the African-American population exceeds the national average by 3 percentage points (15 percent versus 12 percent), or +25 percent. The facility-level demographic analysis results are presented in the November 2011 memorandum titled, Review of Environmental Justice Impacts: Pulp and Paper, a copy of which is available in the docket for this action (EPA-HQ-OAR-2007-0544).

The analysis of demographic data used proximity-to-a-source as a surrogate for exposure to identify those populations considered to be living near affected sources, such that they

have measurable exposures to current HAP emissions from these sources. The demographic data for this analysis were extracted from the 2000 census data, which were provided to the EPA by the U.S. Census Bureau. Distributions by race are based on demographic information at the census block level and all other demographic groups are based on the extrapolation of census block group level data to the census block level. The socio-demographic parameters used in the analysis included the following categories: Racial (White, African American, Native American, Other or Multiracial, and All Other Races); Ethnicity (Hispanic); and Other (Number of people below the poverty line, Number of people with ages between 0 and 18, Number of people with ages greater than or equal to 65, Number of people with no high school diploma).

In determining the aggregate demographic makeup of the communities near affected sources, the EPA focused on those census blocks within 3 miles of affected sources and determined the demographic composition (e.g., race, income, etc.) of these census blocks and compared them to the corresponding compositions nationally. The radius of 3 miles (or approximately 5 km) is consistent with other demographic analyses focused on areas around potential sources.^{13,14,15,16} In addition, air quality

¹³ U.S. GAO (Government Accountability Office). Demographics of People Living Near Waste Facilities. Washington DC: Government Printing Office; 1995.

modeling experience has shown that the area within 3 miles of an individual source of emissions can generally be considered the area with the highest ambient air levels of the primary pollutants being emitted for most sources, both in absolute terms and relative to the contribution of other sources (assuming there are other sources in the area, as is typical in urban areas). While facility processes and fugitive emissions may have more localized impacts, the EPA acknowledges that because of various stack heights, there is the potential for dispersion beyond 3 miles. To the extent that any minority, low income or indigenous subpopulation is disproportionately impacted by the current emissions as a result of the proximity of their homes to these sources, that subpopulation also stands to see increased environmental and health benefit from the emissions reductions that may result from this rule.

The EPA did outreach and consultation on this rule on the subject of federal actions to address EJ issues. The EPA requested input on EJ issues prior to proposal of this rule in regional conference calls and at the EPA's national EJ conference in 2011. Additionally, a public outreach webinar was

¹⁴ Mohai P, Saha R. Reassessing Racial and Socio-economic Disparities in Environmental Justice Research. *Demography*. 2006;43(2): 383-399.

¹⁵ Mennis J. Using Geographic Information Systems to Create and Analyze Statistical Surfaces of Populations and Risk for Environmental Justice Analysis. *Social Science Quarterly*, 2002;83(1):281-297.

¹⁶ Bullard RD, Mohai P, Wright B, Saha R, et al. Toxic Waste and Race at Twenty 1987-2007. United Church of Christ. March, 2007.

conducted during the comment period on January 31, 2012, to review the proposed rule. As noted above, the webinar was coordinated with the tribal governments and the general public.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that, before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). The final rule will be effective on [INSERT DATE OF PUBLICATION OF THIS FINAL RULE IN THE **FEDERAL REGISTER**].

**National Emission Standards for Hazardous Air Pollutants
from the Pulp and Paper Industry**

--Page 62 of 84--

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Incorporation by reference, Reporting and recordkeeping requirements.

July 31, 2012_
Dated:

Lisa P. Jackson,
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency is amending Title 40, chapter I of the Code of Federal Regulations as follows:

PART 63--[AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart A--[Amended]

2. Section 63.14 is amended by:

- a. Revising paragraph (b) (28);
- b. Revising paragraph (b) (54);
- c. Revising paragraph (f) (1);
- d. Redesignating paragraphs (f) (3) and (4) as paragraphs (f) (4) and (5);
- e. Adding new paragraph (f) (3); and
- f. Revising paragraph (i) (1).

The revisions read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(28) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved 2004, IBR approved for §§60.485, 60.485a, 63.457, 63.772, 63.2351, 63.2354, and table 8 to subpart HHHHHHH of this part.

* * * * *

(54) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, approved 2003, IBR approved for §§63.457, 63.1349, table 4 to subpart DDDD of this part, and table 8 to subpart HHHHHHH of this part.

* * * * *

(f) * * *

(1) NCASI Method DI/MEOH-94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IBR approved for §§63.457 and 63.459 of subpart S of this part.

* * * * *

(3) NCASI Method DI/HAPS-99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IBR approved for §63.459(b) of subpart S of this part.

* * * * *

(i) * * *

(1) ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for §§63.309, 63.457(k), 63.865, 63.3166, 63.3360, 63.3545, 63.3555, 63.4166, 63.4362, 63.4766, 63.4965, 63.5160, 63.9307, 63.9323, 63.11148, 63.11155, 63.11162, 63.11163, 63.11410, 63.11551, 63.11945, table 5 to subpart DDDDD of this part, table 1 to

subpart ZZZZZ of this part, table 4 to subpart JJJJJJ of this part, and table 5 to subpart UUUUU of this part.

* * * * *

Subpart S--[Amended]

* * * * *

3. Section 63.441 is amended by adding a definition for "affirmative defense," in alphabetical order, to read as follows:

§63.441 Definitions.

* * * * *

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

* * * * *

4. Section 63.443 is amended by revising paragraph (e) introductory text to read as follows:

§ 63.443 Standards for the pulping system at kraft, soda, and semi-chemical processes.

* * * * *

(e) Periods of excess emissions reported under §63.455 shall not be a violation of §63.443(c) and (d) provided that the time of excess emissions divided by the total process operating time

in a semi-annual reporting period does not exceed the following levels:

* * * * *

5. Section 63.446 is amended by revising paragraph (g) to read as follows:

§ 63.446 Standards for kraft pulping process condensates.

* * * * *

(g) For each control device (e.g., steam stripper system or other equipment serving the same function) used to treat pulping process condensates to comply with the requirements specified in paragraphs (e)(3) through (5) of this section, periods of excess emissions reported under §63.455 shall not be a violation of paragraphs (d), (e)(3) through (5), and (f) of this section provided that the time of excess emissions divided by the total process operating time in a semi-annual reporting period does not exceed 10 percent. The 10 percent excess emissions allowance does not apply to treatment of pulping process condensates according to paragraph (e)(2) of this section (e.g., the biological wastewater treatment system used to treat multiple (primarily non-condensate) wastewater streams to comply with the Clean Water Act).

* * * * *

6. Section 63.453 is amended by adding paragraph (q) to read as follows:

§ 63.453 Monitoring requirements.

* * * * *

(q) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

7. Section 63.454 is amended by revising paragraph (a) and adding paragraph (g) to read as follows:

§63.454 Recordkeeping requirements.

(a) The owner or operator of each affected source subject to the requirements of this subpart shall comply with the recordkeeping requirements of §63.10, as shown in Table 1 of this subpart, and the requirements specified in paragraphs (b) through (g) of this section for the monitoring parameters specified in §63.453.

* * * * *

(g) Recordkeeping of malfunctions. The owner or operator must maintain the following records of malfunctions:

(1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.453(q), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

8. Section 63.455 is amended by adding paragraphs (g) and (h) to read as follows:

§ 63.455 Reporting requirements.

* * * * *

(g) Malfunction reporting requirements. If a malfunction occurred during the reporting period, the report must include the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.453(q), including actions taken to correct a malfunction.

(h) The owner or operator must submit performance test reports as specified in paragraphs (h)(1) through (4) of this section.

(1) The owner or operator of an affected source shall report the results of the performance test before the close of business on the 60th day following the completion of the performance test, unless approved otherwise in writing by the Administrator. A performance test is "completed" when field sample collection is terminated. Unless otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions and raw data. A complete test report must include the purpose of the test; a brief process description; a complete unit description, including a description of feed streams and control devices; sampling site description; pollutants measured; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions, including operating parameters for which limits are being set, during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; chain-of-custody documentation; explanation of laboratory data qualifiers; example calculations of all applicable stack gas parameters, emission rates, percent reduction rates, and analytical results, as applicable; and any other information required by the test method and the Administrator.

(2) Within 60 days after the date of completing each performance test (defined in §63.2) as required by this subpart, the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (<http://www.epa.gov/cdx>). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT website are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the owner or operator

must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT website, the owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(3) Within 60 days after the date of completing each CEMS performance evaluation test as defined in §63.2, the owner or operator must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (2) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT website) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT website, the owner or operator must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

(4) All reports required by this subpart not subject to the requirements in paragraphs (h) (2) and (3) of this section must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the

right to require submittal of reports subject to paragraphs (h)(2) and (3) of this section in paper format.

9. Section 63.456 is added to read as follows:

§ 63.456 Affirmative defense for violation of emission standards during malfunction.

In response to an action to enforce the standards set forth in §§63.443(c) and (d), 63.444(b) and (c), 63.445(b) and (c), 63.446(c), (d), and (e), 63.447(b) or §63.450(d), the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet the burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) Report. The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the

affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

10. Section 63.457 is amended by:

- a. Revising paragraph (a);
- b. Revising paragraph (b) (1) introductory text;
- c. Revising paragraph (b) (3);
- d. Revising paragraph (b) (4);
- e. Revising paragraph (b) (5) (i);
- f. Revising paragraph (b) (5) (ii) introductory text;
- g. Revising paragraph (c) (3) (ii);
- h. Revising paragraph (d) (1);
- i. Revising paragraph (k) (1); and
- j. Adding paragraph (o).

The revisions read as follows:

§ 63.457 Test methods and procedures.

(a) Performance tests. Initial and repeat performance tests are required for the emissions sources specified in paragraphs (a) (1) and (2) of this section, except for emission sources controlled by a combustion device that is designed and operated as specified in §63.443(d) (3) or (4).

(1) Conduct an initial performance test for all emission sources subject to the limitations in §§63.443, 63.444, 63.445, 63.446, and 63.447.

(2) Conduct repeat performance tests at five-year intervals for all emission sources subject to the limitations in §§63.443, 63.444, and 63.445. The first of the 5-year repeat tests must be conducted by September 7, 2015, and thereafter within 60 months from the date of the previous performance test. Five-year repeat testing is not required for the following:

(i) Knotter or screen systems with HAP emission rates below the criteria specified in §63.443(a)(1)(ii).

(ii) Decker systems using fresh water or paper machine white water, or decker systems using process water with a total HAP concentration less than 400 parts per million by weight as specified in §63.443(a)(1)(iv).

(b) * * *

(1) Method 1 or 1A of part 60, appendix A-1, as appropriate, shall be used for selection of the sampling site as follows:

* * * * *

(3) The vent gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D of part 60, appendix A-1, as appropriate.

(4) The moisture content of the vent gas shall be measured using Method 4 of part 60, appendix A-3.

(5) * * *

(i) Method 308 in Appendix A of this part; Method 320 in Appendix A of this part; Method 18 in appendix A-6 of part 60; ASTM D6420-99 (Reapproved 2004) (incorporated by reference in §63.14(b)(28) of subpart A of this part); or ASTM D6348-03 (incorporated by reference in §63.14(b)(54) of subpart A of this part) shall be used to determine the methanol concentration. If ASTM D6348-03 is used, the conditions specified in paragraphs (b)(5)(i)(A) through (b)(5)(i)(B) must be met.

(A) The test plan preparation and implementation in the Annexes to ASTM D6348-03, sections A1 through A8 are required.

(B) In ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5 of ASTM D6348-03). In order for the test data to be acceptable for a compound, %R must be between 70 and 130 percent. If the %R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte following adjustment of the sampling or analytical procedure before the retest. The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound using

the following equation: Reported Result = Measured Concentration in the Stack x 100)/%R.

(ii) Except for the modifications specified in paragraphs (b) (5) (ii) (A) through (b) (5) (ii) (K) of this section, Method 26A of part 60, appendix A-8 shall be used to determine chlorine concentration in the vent stream.

* * * * *

(c) * * *

(3) * * *

(ii) For determining methanol concentrations, NCASI Method DI/MEOH-94.03. This test method is incorporated by reference in §63.14(f)(1) of subpart A of this part.

* * * * *

(d) * * *

(1) Method 21, of part 60, appendix A-7; and

* * * * *

(k) * * *

(1) The emission rate correction factor and excess air integrated sampling and analysis procedures of Methods 3A or 3B of part 60, appendix A-2 shall be used to determine the oxygen concentration. The samples shall be taken at the same time that the HAP samples are taken. As an alternative to Method 3B, ASME PTC 19.10-1981 [Part 10] may be used (incorporated by reference, see §63.14(i)(1)).

* * * * *

(o) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

11. Section 63.459 is amended by:

- a. Revising paragraph (b) (5) (iv) (A) introductory text;
- b. Revising paragraph (b) (5) (iv) (A) (2);
- c. Revising paragraph (b) (8) (ii);
- d. Revising paragraph (b) (8) (iii); and
- e. Revising paragraph (b) (11) (ii).

The revisions read as follows:

§ 63.459 Alternative standards.

* * * * *

(b) * * *

(5) * * *

(iv) * * *

(A) The owner or operator shall measure the methanol concentration of the outfall of any basin, using NCASI Method DI/MEOH 94.03 (incorporated by reference, see §63.14), when the VA/A ratio of that basin exceeds the following:

* * * * *

(2) The highest VA/A ratio at which the outfall of any basin has previously measured non-detect for methanol, using NCASI Method DI/MEOH 94.03 (incorporated by reference, see §63.14).

* * * * *

(8) * * *

(ii) The owner or operator shall use NCASI Method DI/HAPS-99.01 (incorporated by reference, see §63.14) to collect a grab sample and determine the HAP concentration of the Raw Mill Effluent, Pulping Process Condensates, and Anaerobic Basin Discharge for the quarterly performance test conducted during the first quarter each year.

(iii) For each of the remaining three quarters, the owner or operator may use NCASI Method DI/MEOH 94.03 (incorporated by reference, see §63.14) as a surrogate to collect and determine the HAP concentration of the Raw Mill Effluent, Pulping Process Condensates, and Anaerobic Basin Discharge.

* * * * *

(11) * * *

(ii) Periods of excess emissions shall not constitute a violation provided the time of excess emissions divided by the total process operating time in a semi-annual reporting period does not exceed one percent. All periods of excess emission shall be reported, and shall include:

* * * * *

12. Table 1 to subpart S is revised to read as follows:

Table 1 to Subpart S of Part 63—General Provisions Applicability to Subpart S^a

Reference	Applies to Subpart S	Comment
63.1(a)(1)–(3)	Yes	
63.1(a)(4)	Yes	Subpart S (this table) specifies applicability of each paragraph in subpart A to subpart S.
63.1(a)(5)	No	Section reserved.
63.1(a)(6)	Yes	
63.1(a)(7)–(9)	No	Sections reserved.
63.1(a)(10)	No	Subpart S and other cross-referenced subparts specify calendar or operating day.
63.1(a)(11)–(12)	Yes	
63.1(b)(1)	No	Subpart S specifies its own applicability.
63.1(b)(2)	No	Section reserved.
63.1(b)(3)	Yes	
63.1(c)(1)–(2)	Yes	
63.1(c)(3)–(4)	No	Sections reserved.
63.1(c)(5)	Yes	
63.1(d)	No	Section reserved.
63.1(e)	Yes	
63.2	Yes	
63.3	Yes	
63.4(a)(1)–(2)	Yes	
63.4(a)(3)–(5)	No	Sections reserved.
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)	Yes	
63.5(b)(1)	Yes	
63.5(b)(2)	No	Section reserved.
63.5(b)(3)–(4)	Yes	
63.5(b)(5)	No	Section reserved.
63.5(b)(6)	Yes	
63.5(c)	No	Section reserved.
63.5(d)	Yes	
63.5(e)	Yes	
63.5(f)	Yes	
63.6(a)	Yes	
63.6(b)(1)–(5)	No	Subpart S specifies compliance dates for sources subject to subpart S.
63.6(b)(6)	No	Section reserved.
63.6(b)(7)	No	Subpart S specifies compliance dates for sources subject to subpart S.
63.6(c)(1)–(2)	No	Subpart S specifies compliance dates for sources subject to subpart S.

Reference	Applies to Subpart S	Comment
63.6(c)(3)-(4)	No	Sections reserved.
63.6(c)(5)	No	Subpart S specifies compliance dates for sources subject to subpart S.
63.6(d)	No	Section reserved.
63.6(e)(1)(i)	No	See §63.453(q) for general duty requirement
63.6(e)(1)(ii)	No	
63.6(e)(1)(iii)	Yes	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No	
63.6(f)(1)	No	
63.6(f)(2)-(3)	Yes	
63.6(g)	Yes	
63.6(h)(1)-(2)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.6(h)(3)	No	Section reserved.
63.6(h)(4)-(9)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.6(i)(1)-(14)	Yes	
63.6(i)(15)	No	Section reserved.
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)	Yes	
63.7(b)	Yes	
63.7(c)	Yes	
63.7(d)	Yes	
63.7(e)(1)	No	Replaced with §63.457(o), which specifies performance testing conditions under subpart S.
63.7(e)(2)-(4)	Yes	
63.7(f)	Yes	
63.7(g)(1)	Yes	
63.7(g)(2)	No	Section reserved.
63.7(g)(3)	Yes	
63.7(h)	Yes	
63.8(a)(1)-(2)	Yes	
63.8(a)(3)	No	Section reserved.
63.8(a)(4)	Yes	
63.8(b)(1)	Yes	
63.8(b)(2)	No	Subpart S specifies locations to conduct monitoring.
63.8(b)(3)	Yes	
63.8(c)(1)-(c)(1)(i)	No	See §63.453(q) for general duty requirement (which includes monitoring equipment)
63.8(c)(1)(ii)	Yes	
63.8(c)(1)(iii)	No	
63.8(c)(2)-(3)	Yes	
63.8(c)(4)	No	Subpart S allows site specific determination of monitoring frequency in §63.453(n)(4).
63.8(c)(5)	No	Pertains to continuous opacity monitors

Reference	Applies to Subpart S	Comment
		that are not part of this standard.
63.8(c) (6) - (8)	Yes	
63.8(d) (1) - (2)	Yes	
63.8(d) (3)	Yes, except for last sentence, which refers to an SSM plan.	SSM plans are not required.
63.8(e)	Yes	
63.8(f) (1) - (5)	Yes	
63.8(f) (6)	No	Subpart S does not specify relative accuracy test for CEMs.
63.8(g)	Yes	
63.9(a)	Yes	
63.9(b) (1) - (2)	Yes	Initial notifications must be submitted within one year after the source becomes subject to the relevant standard.
63.9(b) (3)	No	Section reserved.
63.9(b) (4) - (5)	Yes	
63.9(c)	Yes	
63.9(d)	No	Special compliance requirements are only applicable to kraft mills.
63.9(e)	Yes	
63.9(f)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.9(g) (1)	Yes	
63.9(g) (2)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.9(g) (3)	No	Subpart S does not specify relative accuracy tests, therefore no notification is required for an alternative.
63.9(h) (1) - (3)	Yes	
63.9(h) (4)	No	Section reserved.
63.9(h) (5) - (6)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b) (1)	Yes	
63.10(b) (2) (i)	No	
63.10(b) (2) (ii)	No	See §63.454(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
63.10(b) (2) (iii)	Yes	
63.10(b) (2) (iv) - (v)	No	
63.10(b) (2) (vi) - (xiv)	Yes	
63.10(b) (3)	Yes	
63.10(c) (1)	Yes	
63.10(c) (2) - (4)	No	Sections reserved.
63.10(c) (5) - (8)	Yes	

Reference	Applies to Subpart S	Comment
63.10 (c) (9)	No	Section reserved.
63.10 (c) (10) - (11)	No	See §63.454(g) for malfunction recordkeeping requirements.
63.10 (c) (12) - (14)	Yes	
63.10 (c) (15)	No	
63.10 (d) (1) - (2)	Yes	
63.10 (d) (3)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.10 (d) (4)	Yes	
63.10 (d) (5)	No	See §63.455(g) for malfunction reporting requirements.
63.10 (e) (1)	Yes	
63.10 (e) (2) (i)	Yes	
63.10 (e) (2) (ii)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.10 (e) (3)	Yes	
63.10 (e) (4)	No	Pertains to continuous opacity monitors that are not part of this standard.
63.10 (f)	Yes	
63.11-63.15	Yes	

^aWherever subpart A specifies "postmark" dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.

[FR Doc. 2012-20501 Filed 09/10/2012 at 8:45 am; Publication Date: 09/11/2012]